DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-000498
Date Inspected: 06-Sep-2007

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1400
OSM Departure Time: 2300
Location: Shanghai, China

CWI Name: Ye Yong Jun & Li Gang

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☐ Yes	☑ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: 77 Mock-Up

Summary of Items Observed:

On this date, Caltrans Office of Structural Materials (OSM), Quality Assurance (QA) Inspector, David A. Smith was present for the random observations related to the following;

Item-1 Caltrans QA briefly instructed Larry Viars on what was expected for the monitoring of the welding and the Magnetic Particle (MT) testing by ZPMC as well as the percentage of MT testing required for the Caltrans QA Inspectors to perform.

Item-2 Skin Plate-A ZPMC advised the Caltrans QA Inspector that ultrasonic testing of the welding of the stiffener plates for Skin Plate-A would take place at approximately 3:15PM. The ZPMC CWI/QC present was Ye Yong Jun and CWI Li Gang and Xu Liang Zhang. The QC's were Li Yang and Xu Rong Gong. Also present for a brief period was Kevin Carpenter, Lead QA with American Bridge. The Ultrasonic technicians (UT) were Li Li Ming using a Parametric unit SN 05139272 with a calibration due date of Jan. 1, 2008 and E. Shuiqin also using a Panametrics unit SN 061488510 with a calibration due date of May 27, 2008. E. Shuiqin did perform calibration with a 1.0 diameter, 2.5 MHz, DF-P25 transducer using an AWS IIW Calibration block SN 0707265 for the purpose of performing a lamination scan of the areas of the stiffener plates above the welding for which no relevant indications were noted. E. Shuiqin also calibrated on the IIW block with a 70 degree, 2.5 MHz, 18X18 transducer SN 1403 for the flaw detection scanning. Indications observed with the 70 degree transducer were documented while facing the side of the skin plate with stiffener plate 3 closest to the viewer which would also be side A with side B being the opposite side. Left and right are while facing side A with the stiffener plate 3 closes to the viewer. Indications with the 70 degree transducer are as follows:

1. Stiffener 3 side A from 470.8 to 550.6mm from right edge of stiffener plate.
2. Stiffener 3 side B from 0 to 550.6mm from right edge central portion of weld.
3. Stiffener 1 side A from 290 to 720.7mm from right edge central portion of weld.

4. Stiffener 1 side A from 1250 to 1540mm from right edge central portion of weld.
5. Stiffener 1 side A from 1090 to 1540mm from right edge 52mm deep.
6. Stiffener 1 side B from 1090 to 1540mm from right edge 45mm deep.
7. Stiffener 2 side B from 0 to 1560mm from right edge central portion of weld.
8. Stiffener 2 side B from 1860 to 2000.4mm from right edge central portion of weld

Li LI Ming did calibrate his UT unit using a 45 degree, 2.5 MHz, 18x18 transducer SN 3170 with the AWS IIW block. The indications noted while scanning the stiffener plate welding are as follows:

1. Stiffener 3 side B from 350 to 540.5mm from right edge.
2. Stiffener 3 side A from 180.5 to 430mm from right edge central portion of weld.
3. Stiffener 3 side B from 1800 to 2000.4mm from right edge. (3 indications within this area)
4. Stiffener 2 side A from 0 to 160mm from right edge 6mm up from bottom & 11mm in from side A.
5. Stiffener 4 side A from 160.3 to 180.3mm from right edge 10mm up from bottom, 70mm in from side A.
6. Stiffener 4 side A from 310 to 400 from right edge 3mm up from bottom, 57mm in from side A.
7. Stiffener 4 side A from 640.5 to 730.5 from right edge 3mm up from bottom, 57mm in from side A.

Both units were recalibrated during scanning and once scanning had been completed by the technicians. Both technicians were scanning at the same time making a 100% visual for each technician impossible.

Summary of Conversations:

There were no pertnent conversations pertaining to the project during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Smith,David	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer